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 His Gly Ile Tyr Arg Asp Ala Lys
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 Asp Gly

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 Tyr Glu Lys
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 Ala Asp Arg Val Leu Thr Val Ser Pro Tyr Tyr Ala Glu Glu Leu Ile
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 Gly Ile Thr Gly Ile Val Asn Gly Met Asp Val Ser Glu Trp Asp Pro
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Gly	Val	Asp	Arg	Val	Phe	Val	Asp	His	Pro	Leu	Phe	Leu	Glu	Arg	Val	85	90	95	
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Glu	Ala	Pro	Arg	Ile	Leu	Ser	Leu	Asn	Asn	Asn	Pro	Tyr	Phe	Ser	Gly	130	135	140	
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 Gln Gly Met Arg Tyr Gly Thr Pro Cys Ala Cys Ala Ser Thr Gly Gly
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Pro	Ala	Gly	Gly	Asp	Ala	Thr	Ser	Leu	Ser	Val	Thr	Thr	Ser	Ala	Arg	
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Ala	Gly	Met	Asn	Val 85	Val	Phe	Val	Gly	Ala 90	Glu	Met	Ala	Pro	Trp 95	Ser
Lys	Thr	Gly	Gly 100	Leu	Gly	Asp	Val	Leu 105	Gly	Gly	Leu	Pro	Pro 110	Ala	Met
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Asp	Arg	Val	Phe 165	Ile	Asp	His	Pro	Ser	Phe 170	Leu	Glu	Lys	Val	Trp 175	Gly
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Pro	Arg 210	Ile	Leu	Asn	Leu	Asn 215	Asn	Asn	Pro	Tyr	Phe 220	Lys	Gly	Thr	Tyr
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Pro	Leu	Ile	Ala	Phe	Ile	Gly	Arg	Leu	Glu	Glu	Gln	Lys	Gly	Pro	Asp	405	410	415
Val	Met	Ala	Ala	Ala	Ile	Pro	Glu	Leu	Met	Gln	Glu	Asp	Val	Gln	Ile	420	425	430
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Ala	Pro	Leu	Ala	His	Leu	Ile	Met	Ala	Gly	Ala	Asp	Val	Leu	Ala	Val	465	470	475
Pro	Ser	Arg	Phe	Glu	Pro	Cys	Gly	Leu	Ile	Gln	Leu	Gln	Gly	Met	Arg	485	490	495
Tyr	Gly	Thr	Pro	Cys	Ala	Cys	Ala	Ser	Thr	Gly	Gly	Leu	Val	Asp	Thr	500	505	510
Val	Ile	Glu	Gly	Lys	Thr	Gly	Phe	His	Met	Gly	Arg	Leu	Ser	Val	Asp	515	520	525
Cys	Lys	Val	Val	Glu	Pro	Ser	Asp	Val	Lys	Lys	Val	Ala	Ala	Thr	Leu	530	535	540
Lys	Arg	Ala	Ile	Lys	Val	Val	Gly	Thr	Pro	Ala	Tyr	Glu	Glu	Met	Val	545	550	555
Arg	Asn	Cys	Met	Asn	Gln	Asp	Leu	Ser	Trp	Lys	Gly	Pro	Ala	Lys	Asn	565	570	575

Trp Glu Asn Val Leu Leu Gly Leu Gly Val Ala Gly Ser Ala Pro Gly
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Ile Glu Gly Asp Glu Ile Ala Pro Leu Ala Lys Glu Asn Val Ala Ala
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Pro

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gac gcc gcc agg ttg ccc cgc gct cgg cgc aat gcg gtc tcc aaa cgg	96
Asp Ala Ala Arg Leu Pro Arg Ala Arg Arg Asn Ala Val Ser Lys Arg	
20 25 30	
agg gat cct ctt cag ccg gtc ggc cgg tac ggc tcc gcg acg gga aac	144
Arg Asp Pro Leu Gln Pro Val Gly Arg Tyr Gly Ser Ala Thr Gly Asn	
35 40 45	
acg gcc agg acc ggc gcc gcg tcc tgc cag aac gcc gca ttg gcg gac	192
Thr Ala Arg Thr Gly Ala Ala Ser Cys Gln Asn Ala Ala Leu Ala Asp	
50 55 60	
gtt gag atc gtt gag atc aag tcc atc gtc gcc gcg ccg ccg acg agc	240
Val Glu Ile Val Glu Ile Lys Ser Ile Val Ala Ala Pro Pro Thr Ser	
65 70 75 80	
ata gtg aag ttc cca ggg cgc ggg cta cag gat gat cct tcc ctc tgg	288
Ile Val Lys Phe Pro Gly Arg Gly Leu Gln Asp Asp Pro Ser Leu Trp	
85 90 95	
gac ata gca ccg gag act gtc ctc cca gcc ccg aag cca ctg cat gaa	336
Asp Ile Ala Pro Glu Thr Val Leu Pro Ala Pro Lys Pro Leu His Glu	
100 105 110	
tcg cct gcg gtt gac gga gat tca aat gga att gca cct cct aca gtt	384
Ser Pro Ala Val Asp Gly Asp Ser Asn Gly Ile Ala Pro Pro Thr Val	
115 120 125	
gag cca tta gta cag gag gcc act tgg gat ttc aag aaa tac atc ggt	432
Glu Pro Leu Val Gln Glu Ala Thr Trp Asp Phe Lys Lys Tyr Ile Gly	
130 135 140	

ttt gac gag cct gac gaa gcg aag gat gat tcc agg gtt ggt gca gat Phe Asp Glu Pro Asp Glu Ala Lys Asp Asp Ser Arg Val Gly Ala Asp 145 150 155 160	480
gat gct ggt tct ttt gaa cat tat ggg aca atg att ctg ggc ctt tgt Asp Ala Gly Ser Phe Glu His Tyr Gly Thr Met Ile Leu Gly Leu Cys 165 170 175	528
ggg gag aat gtt atg aac gtg atc gtg gtg gct gct gaa tgt tct cca Gly Glu Asn Val Met Asn Val Ile Val Val Ala Ala Glu Cys Ser Pro 180 185 190	576
tgg tgc aaa aca ggt ggt ctt gga gat gtt gtg gga gct tta ccc aag Trp Cys Lys Thr Gly Gly Leu Gly Asp Val Val Gly Ala Leu Pro Lys 195 200 205	624
gct tta gcg aga aga gga cat cgt gtt atg gtt gtg gta cca agg tat Ala Leu Ala Arg Arg Gly His Arg Val Met Val Val Val Pro Arg Tyr 210 215 220	672
ggg gac tat gtg gaa gcc ttt gat atg gga atc cgg aaa tac tac aaa Gly Asp Tyr Val Glu Ala Phe Asp Met Gly Ile Arg Lys Tyr Tyr Lys 225 230 235 240	720
gct gca gga cag gac cta gaa gtg aac tat ttc cat gca ttt att gat Ala Ala Gly Gln Asp Leu Glu Val Asn Tyr Phe His Ala Phe Ile Asp 245 250 255	768
gga gtc gac ttt gtg ttc att gat gcc tct ttc cgg cac cgt caa gat Gly Val Asp Phe Val Phe Ile Asp Ala Ser Phe Arg His Arg Gln Asp 260 265 270	816
gac ata tat ggg gga agt agg cag gaa atc atg aag cgc atg att ttg Asp Ile Tyr Gly Gly Ser Arg Gln Glu Ile Met Lys Arg Met Ile Leu 275 280 285	864
ttt tgc aag gtt gct gtt gag gtt cct tgg cac gtt cca tgc ggt ggt Phe Cys Lys Val Ala Val Glu Val Pro Trp His Val Pro Cys Gly Gly 290 295 300	912
gtg tgc tac gga gat gga aat ttg gtg ttc att gcc atg aat tgg cac Val Cys Tyr Gly Asp Gly Asn Leu Val Phe Ile Ala Met Asn Trp His 305 310 315 320	960
act gca ctc ctg cct gtt tat ctg aag gca tat tac aga gac cat ggg Thr Ala Leu Leu Pro Val Tyr Leu Lys Ala Tyr Tyr Arg Asp His Gly 325 330 335	1008
tta atg cag tac act cgc tcc gtc ctc gtc ata cat aac atc ggc cac Leu Met Gln Tyr Thr Arg Ser Val Leu Val Ile His Asn Ile Gly His 340 345 350	1056
cag ggc cgt ggt cct gta cat gaa ttc ccg tac atg gac ttg ctg aac Gln Gly Arg Gly Pro Val His Glu Phe Pro Tyr Met Asp Leu Leu Asn 355 360 365	1104

act aac ctt caa cat ttc gag ctg tac gat ccc gtc ggt ggc gag cac	1152
Thr Asn Leu Gln His Phe Glu Leu Tyr Asp Pro Val Gly Gly Glu His	
370 375 380	
gcc aac atc ttt gcc gcg tgt gtt ctg aag atg gca gac cgg gtg gtg	1200
Ala Asn Ile Phe Ala Ala Cys Val Leu Lys Met Ala Asp Arg Val Val	
385 390 395 400	
act gtc agc cgc ggc tac ctg tgg gag ctg aag aca gtg gaa ggc ggc	1248
Thr Val Ser Arg Gly Tyr Leu Trp Glu Leu Lys Thr Val Glu Gly Gly	
405 410 415	
tgg ggc ctc cac gac atc atc cgt tct aac gac tgg aag atc aat ggc	1296
Trp Gly Leu His Asp Ile Ile Arg Ser Asn Asp Trp Lys Ile Asn Gly	
420 425 430	
att cgt gaa cgc atc gac cac cag gag tgg aac ccc aag gtg gac gtg	1344
Ile Arg Glu Arg Ile Asp His Gln Glu Trp Asn Pro Lys Val Asp Val	
435 440 445	
cac ctg cgg tcg gac ggc tac acc aac tac tcc ctc gag aca ctc gac	1392
His Leu Arg Ser Asp Gly Tyr Thr Asn Tyr Ser Leu Glu Thr Leu Asp	
450 455 460	
gct gga aag cgg cag tgc aag gcg gcc ctg cag cgg gac gtg ggc ctg	1440
Ala Gly Lys Arg Gln Cys Lys Ala Ala Leu Gln Arg Asp Val Gly Leu	
465 470 475 480	
gaa gtg cgc gac gac gtg ccg ctg ctc ggc ttc atc ggg cgt ctg gat	1488
Glu Val Arg Asp Asp Val Pro Leu Leu Gly Phe Ile Gly Arg Leu Asp	
485 490 495	
gga cag aag ggc gtg gac atc atc ggg gac gcg atg ccg tgg atc gcg	1536
Gly Gln Lys Gly Val Asp Ile Ile Gly Asp Ala Met Pro Trp Ile Ala	
500 505 510	
ggg cag gac gtg cag ctg gtg atg ctg ggc acc ggc cca cct gac ctg	1584
Gly Gln Asp Val Gln Leu Val Met Leu Gly Thr Gly Pro Pro Asp Leu	
515 520 525	
gaa cga atg ctg cag cac ttg gag cgg gag cat ccc aac aag gtg cgc	1632
Glu Arg Met Leu Gln His Leu Glu Arg Glu His Pro Asn Lys Val Arg	
530 535 540	
ggg tgg gtc ggg ttc tcg gtc cta atg gtg cat cgc atc acg ccg ggc	1680
Gly Trp Val Gly Phe Ser Val Leu Met Val His Arg Ile Thr Pro Gly	
545 550 555 560	
gcc agc gtg ctg gtg atg ccc tcc cgc ttc gcc ggc ggg ctg aac cag	1728
Ala Ser Val Leu Val Met Pro Ser Arg Phe Ala Gly Gly Leu Asn Gln	
565 570 575	
ctc tac gcg atg gca tac ggc acc gtc cct gtg gtg cac gcc gtg ggc	1776
Leu Tyr Ala Met Ala Tyr Gly Thr Val Pro Val Val His Ala Val Gly	
580 585 590	

ggg ctc agg gac acc gtg gcg ccg ttc gac ccg ttc ggc gac gcc ggg 1824
 Gly Leu Arg Asp Thr Val Ala Pro Phe Asp Pro Phe Gly Asp Ala Gly
 595 600 605

ctc ggg tgg act ttt gac cgc gcc gag gcc aac aag ctg atc gag gtg 1872
 Leu Gly Trp Thr Phe Asp Arg Ala Glu Ala Asn Lys Leu Ile Glu Val
 610 615 620

ctc agc cac tgc ctc gac acg tac cga aac tac gag gag agc tgg aag 1920
 Leu Ser His Cys Leu Asp Thr Tyr Arg Asn Tyr Glu Glu Ser Trp Lys
 625 630 635 640

agt ctc cag gcg cgc gcc atg tcg cag aac ctc agc tgg gac cac gcg 1968
 Ser Leu Gln Ala Arg Gly Met Ser Gln Asn Leu Ser Trp Asp His Ala
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 35 40 45
 Thr Ala Arg Thr Gly Ala Ala Ser Cys Gln Asn Ala Ala Leu Ala Asp
 50 55 60
 Val Glu Ile Val Glu Ile Lys Ser Ile Val Ala Ala Pro Pro Thr Ser
 65 70 75 80
 Ile Val Lys Phe Pro Gly Arg Gly Leu Gln Asp Asp Pro Ser Leu Trp
 85 90 95
 Asp Ile Ala Pro Glu Thr Val Leu Pro Ala Pro Lys Pro Leu His Glu
 100 105 110
 Ser Pro Ala Val Asp Gly Asp Ser Asn Gly Ile Ala Pro Pro Thr Val
 115 120 125
 Glu Pro Leu Val Gln Glu Ala Thr Trp Asp Phe Lys Lys Tyr Ile Gly
 130 135 140
 Phe Asp Glu Pro Asp Glu Ala Lys Asp Asp Ser Arg Val Gly Ala Asp
 145 150 155 160

Asp	Ala	Gly	Ser	Phe	Glu	His	Tyr	Gly	Thr	Met	Ile	Leu	Gly	Leu	Cys		
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Gly	Glu	Asn	Val	Met	Asn	Val	Ile	Val	Val	Ala	Ala	Glu	Cys	Ser	Pro		
			180					185					190				
Trp	Cys	Lys	Thr	Gly	Gly	Leu	Gly	Asp	Val	Val	Gly	Ala	Leu	Pro	Lys		
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Ala	Leu	Ala	Arg	Arg	Gly	His	Arg	Val	Met	Val	Val	Val	Pro	Arg	Tyr		
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Gly	Asp	Tyr	Val	Glu	Ala	Phe	Asp	Met	Gly	Ile	Arg	Lys	Tyr	Tyr	Lys		
225					230					235					240		
Ala	Ala	Gly	Gln	Asp	Leu	Glu	Val	Asn	Tyr	Phe	His	Ala	Phe	Ile	Asp		
				245					250					255			
Gly	Val	Asp	Phe	Val	Phe	Ile	Asp	Ala	Ser	Phe	Arg	His	Arg	Gln	Asp		
			260					265						270			
Asp	Ile	Tyr	Gly	Gly	Ser	Arg	Gln	Glu	Ile	Met	Lys	Arg	Met	Ile	Leu		
		275					280					285					
Phe	Cys	Lys	Val	Ala	Val	Glu	Val	Pro	Trp	His	Val	Pro	Cys	Gly	Gly		
	290					295					300						
Val	Cys	Tyr	Gly	Asp	Gly	Asn	Leu	Val	Phe	Ile	Ala	Met	Asn	Trp	His		
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Thr	Ala	Leu	Leu	Pro	Val	Tyr	Leu	Lys	Ala	Tyr	Tyr	Arg	Asp	His	Gly		
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Leu	Met	Gln	Tyr	Thr	Arg	Ser	Val	Leu	Val	Ile	His	Asn	Ile	Gly	His		
			340					345					350				
Gln	Gly	Arg	Gly	Pro	Val	His	Glu	Phe	Pro	Tyr	Met	Asp	Leu	Leu	Asn		
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Thr	Asn	Leu	Gln	His	Phe	Glu	Leu	Tyr	Asp	Pro	Val	Gly	Gly	Glu	His		
	370					375					380						
Ala	Asn	Ile	Phe	Ala	Ala	Cys	Val	Leu	Lys	Met	Ala	Asp	Arg	Val	Val		
385					390					395					400		
Thr	Val	Ser	Arg	Gly	Tyr	Leu	Trp	Glu	Leu	Lys	Thr	Val	Glu	Gly	Gly		
				405				410						415			
Trp	Gly	Leu	His	Asp	Ile	Ile	Arg	Ser	Asn	Asp	Trp	Lys	Ile	Asn	Gly		
			420					425					430				
Ile	Arg	Glu	Arg	Ile	Asp	His	Gln	Glu	Trp	Asn	Pro	Lys	Val	Asp	Val		
		435					440					445					
His	Leu	Arg	Ser	Asp	Gly	Tyr	Thr	Asn	Tyr	Ser	Leu	Glu	Thr	Leu	Asp		
	450					455					460						

Ala Gly Lys Arg Gln Cys Lys Ala Ala Leu Gln Arg Asp Val Gly Leu
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Glu Val Arg Asp Asp Val Pro Leu Leu Gly Phe Ile Gly Arg Leu Asp
 485 490 495

Gly Gln Lys Gly Val Asp Ile Ile Gly Asp Ala Met Pro Trp Ile Ala
 500 505 510

Gly Gln Asp Val Gln Leu Val Met Leu Gly Thr Gly Pro Pro Asp Leu
 515 520 525

Glu Arg Met Leu Gln His Leu Glu Arg Glu His Pro Asn Lys Val Arg
 530 535 540

Gly Trp Val Gly Phe Ser Val Leu Met Val His Arg Ile Thr Pro Gly
 545 550 555 560

Ala Ser Val Leu Val Met Pro Ser Arg Phe Ala Gly Gly Leu Asn Gln
 565 570 575

Leu Tyr Ala Met Ala Tyr Gly Thr Val Pro Val Val His Ala Val Gly
 580 585 590

Gly Leu Arg Asp Thr Val Ala Pro Phe Asp Pro Phe Gly Asp Ala Gly
 595 600 605

Leu Gly Trp Thr Phe Asp Arg Ala Glu Ala Asn Lys Leu Ile Glu Val
 610 615 620

Leu Ser His Cys Leu Asp Thr Tyr Arg Asn Tyr Glu Glu Ser Trp Lys
 625 630 635 640

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gcg tcc tcc tcg ccg cgg cgc agg cgg ggc agt gtg ggt gct gct ctg 96
 Ala Ser Ser Ser Pro Arg Arg Arg Arg Gly Ser Val Gly Ala Ala Leu
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cgc tcg tac ggc tac agc ggc gcg gag ctg cgg ttg cat tgg gcg cgg	144
Arg Ser Tyr Gly Tyr Ser Gly Ala Glu Leu Arg Leu His Trp Ala Arg	
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cgg ggc ccg cct cag gat gga gcg gcg tcg gta cgc gcc gca gcg gca	192
Arg Gly Pro Pro Gln Asp Gly Ala Ala Ser Val Arg Ala Ala Ala	
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ccg gcc ggg ggc gaa agc gag gag gca gcg aag agc tcc tcc tcg tcc	240
Pro Ala Gly Gly Glu Ser Glu Glu Ala Ala Lys Ser Ser Ser Ser	
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Gln Ala Gly Ala Val Gln Gly Ser Thr Ala Lys Ala Val Asp Ser Ala	
85 90 95	
tca cct ccc aat cct ttg aca tct gct ccg aag caa agt cag agc gct	336
Ser Pro Pro Asn Pro Leu Thr Ser Ala Pro Lys Gln Ser Gln Ser Ala	
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gca atg caa aac gga acg agt ggg ggc agc agc gcg agc acc gcc gcg	384
Ala Met Gln Asn Gly Thr Ser Gly Gly Ser Ser Ala Ser Thr Ala Ala	
115 120 125	
ccg gtg tcc gga ccc aaa gct gat cat cca tca gct cct gtc acc aag	432
Pro Val Ser Gly Pro Lys Ala Asp His Pro Ser Ala Pro Val Thr Lys	
130 135 140	
aga gaa atc gat gcc agt gcg gtg aag cca gag ccc gca ggt gat gat	480
Arg Glu Ile Asp Ala Ser Ala Val Lys Pro Glu Pro Ala Gly Asp Asp	
145 150 155 160	
gct aga ccg gtg gaa agc ata ggc atc gct gaa ccg gtg gat gct aag	528
Ala Arg Pro Val Glu Ser Ile Gly Ile Ala Glu Pro Val Asp Ala Lys	
165 170 175	
gct gat gca gct ccg gct aca gat gcg gcg gcg agt gct cct tat gac	576
Ala Asp Ala Ala Pro Ala Thr Asp Ala Ala Ala Ser Ala Pro Tyr Asp	
180 185 190	
agg gag gat aat gaa cct ggc cct ttg gct ggg cct aat gtg atg aac	624
Arg Glu Asp Asn Glu Pro Gly Pro Leu Ala Gly Pro Asn Val Met Asn	
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gtc gtc gtg gtg gct tct gaa tgt gct cct ttc tgc aag aca ggt ggc	672
Val Val Val Val Ala Ser Glu Cys Ala Pro Phe Cys Lys Thr Gly Gly	
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Leu Gly Asp Val Val Gly Ala Leu Pro Lys Ala Leu Ala Arg Arg Gly	
225 230 235 240	
cac cgt gtt atg gtc gtg ata cca aga tat gga gag tat gcc gaa gcc	768
His Arg Val Met Val Val Ile Pro Arg Tyr Gly Glu Tyr Ala Glu Ala	
245 250 255	

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Arg Asp Leu Gly Val Arg Arg Arg Tyr Lys Val Ala Gly Gln Asp Ser	
260 265 270	
gaa gtt act tat ttt cac tct tac att gat gga gtt gat ttt gta ttc	864
Glu Val Thr Tyr Phe His Ser Tyr Ile Asp Gly Val Asp Phe Val Phe	
275 280 285	
gta gaa gcc cct ccc ttc cgg cac cgg cac aat aat att tat ggg gga	912
Val Glu Ala Pro Pro Phe Arg His Arg His Asn Asn Ile Tyr Gly Gly	
290 295 300	
gaa aga ttg gat att ttg aag cgc atg att ttg ttc tgc aag gcc gct	960
Glu Arg Leu Asp Ile Leu Lys Arg Met Ile Leu Phe Cys Lys Ala Ala	
305 310 315 320	
gtt gag gtt cca tgg tat gct cca tgt ggc ggt act gtc tat ggt gat	1008
Val Glu Val Pro Trp Tyr Ala Pro Cys Gly Thr Val Tyr Gly Asp	
325 330 335	
ggc aac tta gtt ttc att gct aat gat tgg cat acc gca ctt ctg cct	1056
Gly Asn Leu Val Phe Ile Ala Asn Asp Trp His Thr Ala Leu Leu Pro	
340 345 350	
gtc tat cta aag gcc tat tac cgg gac aat ggt ttg atg cag tat gct	1104
Val Tyr Leu Lys Ala Tyr Tyr Arg Asp Asn Gly Leu Met Gln Tyr Ala	
355 360 365	
cgc tct gtg ctt gtg ata cac aac att gct cat cag ggt cgt ggc cct	1152
Arg Ser Val Leu Val Ile His Asn Ile Ala His Gln Gly Arg Gly Pro	
370 375 380	
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Val Asp Asp Phe Val Asn Phe Asp Leu Pro Glu His Tyr Ile Asp His	
385 390 395 400	
ttc aaa ctg tat gac aac att ggt ggg gat cac agc aac gtt ttt gct	1248
Phe Lys Leu Tyr Asp Asn Ile Gly Gly Asp His Ser Asn Val Phe Ala	
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Ala Gly Leu Lys Thr Ala Asp Arg Val Val Thr Val Ser Asn Gly Tyr	
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Met Trp Glu Leu Lys Thr Ser Glu Gly Gly Trp Gly Leu His Asp Ile	
435 440 445	
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Ile Asn Gln Asn Asp Trp Lys Leu Gln Gly Ile Val Asn Gly Ile Asp	
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Met Ser Glu Trp Asn Pro Ala Val Asp Val His Leu His Ser Asp Asp	
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Tyr Thr Asn Tyr Thr Phe Glu Thr Leu Asp Thr Gly Lys Arg Gln Cys	
485 490 495	
aag gcc gcc ctg cag cgg cag ctg ggc ctg cag gtc cgc gac gac gtg	1536
Lys Ala Ala Leu Gln Arg Gln Leu Gly Leu Gln Val Arg Asp Asp Val	
500 505 510	
cca ctg atc ggg ttc atc ggg cgg ctg gac cac cag aag ggc gtg gac	1584
Pro Leu Ile Gly Phe Ile Gly Arg Leu Asp His Gln Lys Gly Val Asp	
515 520 525	
atc atc gcc gac gcg atc cac tgg atc gcg ggg cag gac gtg cag ctc	1632
Ile Ile Ala Asp Ala Ile His Trp Ile Ala Gly Gln Asp Val Gln Leu	
530 535 540	
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Val Met Leu Gly Thr Gly Arg Ala Asp Leu Glu Asp Met Leu Arg Arg	
545 550 555 560	
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Phe Glu Ser Glu His Ser Asp Lys Val Arg Ala Trp Val Gly Phe Ser	
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Val Pro Leu Ala His Arg Ile Thr Ala Gly Ala Asp Ile Leu Leu Met	
580 585 590	
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Pro Ser Arg Phe Glu Pro Cys Gly Leu Asn Gln Leu Tyr Ala Met Ala	
595 600 605	
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Tyr Gly Thr Val Pro Val Val His Ala Val Gly Gly Leu Arg Asp Thr	
610 615 620	
gtg gcg ccg ttc gac ccg ttc aac gac acc ggg ctc ggg tgg acg ttc	1920
Val Ala Pro Phe Asp Pro Phe Asn Asp Thr Gly Leu Gly Trp Thr Phe	
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gac cgc gcg gag gcg aac cgg atg atc gac gcg ctc tcg cac tgc ctc	1968
Asp Arg Ala Glu Ala Asn Arg Met Ile Asp Ala Leu Ser His Cys Leu	
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acc acg tac cgg aac tac aag gag agc tgg cgc gcc tgc agg gcg cgc	2016
Thr Thr Tyr Arg Asn Tyr Lys Glu Ser Trp Arg Ala Cys Arg Ala Arg	
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ggc atg gcc gag gac ctc agc tgg gac cac gcc gcc gtg ctg tat gag	2064
Gly Met Ala Glu Asp Leu Ser Trp Asp His Ala Ala Val Leu Tyr Glu	
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	50					55					60				
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	65				70					75					80
Gln	Ala	Gly	Ala	Val	Gln	Gly	Ser	Thr	Ala	Lys	Ala	Val	Asp	Ser	Ala
				85					90					95	
Ser	Pro	Pro	Asn	Pro	Leu	Thr	Ser	Ala	Pro	Lys	Gln	Ser	Gln	Ser	Ala
			100					105					110		
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	130					135					140				
Arg	Glu	Ile	Asp	Ala	Ser	Ala	Val	Lys	Pro	Glu	Pro	Ala	Gly	Asp	Asp
	145				150					155				160	
Ala	Arg	Pro	Val	Glu	Ser	Ile	Gly	Ile	Ala	Glu	Pro	Val	Asp	Ala	Lys
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			180					185					190		
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		195					200					205			
Val	Val	Val	Val	Ala	Ser	Glu	Cys	Ala	Pro	Phe	Cys	Lys	Thr	Gly	Gly
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Gln Glu Phe Asp Gln Ala Met Gln His Leu Glu Gln Lys Tyr Glu Phe	
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Met Thr Ser Asp His Gln Tyr Ile Ser Arg Lys His Glu Glu Asp Lys	
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Val Ile Val Phe Glu Lys Gly Asp Leu Val Phe Val Phe Asn Phe His	
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 Ser Arg Ile His His Ala Ala Glu His Phe Thr Ala Asp Cys Ser His
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 Asp Asn Arg Pro Tyr Ser Phe Ser Val Tyr Thr Pro Ser Arg Thr Cys
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 40 45 50

Pro Pro Pro Ser Asp Gly Gln Lys Ile Phe Gln Ile Asp Pro Met Leu
 55 60 65 70

Gln Gly Tyr Lys Tyr His Leu Glu Tyr Arg Tyr Ser Leu Tyr Arg Arg
 75 80 85

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Tyr	Arg	Glu	Trp	Ala	Pro	Gly	Ala	Phe	Ser	Ala	Ala	Leu	Val	Gly	Asp		
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Ser	Arg	Lys	His	Glu	Glu	Asp	Lys	Val	Ile	Val	Phe	Glu	Lys	Gly	Asp		
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Tyr His Val Thr Asn Phe Phe Ala Val Ser Ser Arg Ser Gly Thr Pro	
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Pro Ala Ala Gln Glu Ala Glu Leu Ile Gly Asp Phe Asn Asp Trp Asn
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Ala	Leu	Ile	Arg	Tyr	Ala	Thr	Val	Asp	Ala	Ser	Lys	Phe	Gly	Ala	Pro	150	155	160	
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Pro	Asp	Arg	Trp	Ile	Asp	Tyr	Leu	Lys	Asn	Lys	Asp	Asp	Ser	Glu	Trp	435	440	445	
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Ser	Asp	Leu	Gln	Pro	Ala	Ser	Pro	Thr	Ile	Asp	Arg	Gly	Ile	Ala	Leu	500	505	510	
Gln	Lys	Met	Ile	His	Phe	Ile	Thr	Met	Ala	Leu	Gly	Gly	Asp	Gly	Tyr	515	520	525	
Leu	Asn	Phe	Met	Gly	Asn	Glu	Phe	Gly	His	Pro	Glu	Trp	Ile	Asp	Phe	530	535	540	545
Pro	Arg	Glu	Gly	Asn	Asn	Trp	Ser	Tyr	Asp	Lys	Cys	Arg	Arg	Gln	Trp	550	555	560	
Ser	Leu	Val	Asp	Thr	Asp	His	Leu	Arg	Tyr	Lys	Tyr	Met	Asn	Ala	Phe	565	570	575	
Asp	Gln	Ala	Met	Asn	Ala	Leu	Asp	Glu	Arg	Phe	Ser	Phe	Leu	Ser	Ser	580	585	590	
Ser	Lys	Gln	Ile	Val	Ser	Asp	Met	Asn	Asp	Glu	Glu	Lys	Val	Ile	Val	595	600	605	
Phe	Glu	Arg	Gly	Asp	Leu	Val	Phe	Val	Phe	Asn	Phe	His	Pro	Lys	Lys	610	615	620	625
Thr	Tyr	Glu	Gly	Tyr	Lys	Val	Gly	Cys	Asp	Leu	Pro	Gly	Lys	Tyr	Arg	630	635	640	
Val	Ala	Leu	Asp	Ser	Asp	Ala	Leu	Val	Phe	Gly	Gly	His	Gly	Arg	Val	645	650	655	
Gly	His	Asp	Val	Asp	His	Phe	Thr	Ser	Pro	Glu	Gly	Val	Pro	Gly	Val	660	665	670	
Pro	Glu	Thr	Asn	Phe	Asn	Asn	Arg	Pro	Asn	Ser	Phe	Lys	Val	Leu	Ser	675	680	685	
Pro	Pro	Arg	Thr	Cys	Val	Ala	Tyr	Tyr	Arg	Val	Asp	Glu	Ala	Gly	Ala	690	695	700	705

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<220>  
<221> CDS  
<222> (1)..(153)
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<210> 19
<211> 51
<212> PRT
<213> Zea mays
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<400> 19
Met Ala Thr Pro Ser Ala Val Gly Ala Ala Cys Leu Leu Leu Ala Arg
  1             5             10             15

Ala Ala Trp Pro Ala Ala Val Gly Asp Arg Ala Arg Pro Arg Arg Leu
      20             25             30

Gln Arg Val Leu Arg Arg Arg Cys Val Ala Glu Leu Ser Arg Glu Gly
      35             40             45

Pro His Met
      50

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<210> 20
 <211> 1620
 <212> DNA
 <213> Zea mays

<220>
 <221> CDS
 <222> (1)..(1617)

<400> 20
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 Cys Val Ala Glu Leu Ser Arg Glu Asp Leu Gly Leu Glu Pro Glu Gly
 1 5 10 15
 att gct gaa ggt tcc atc gat aac aca gta gtt gtg gca agt gag caa 96
 Ile Ala Glu Gly Ser Ile Asp Asn Thr Val Val Val Ala Ser Glu Gln
 20 25 30
 gat tct gag att gtg gtt gga aag gag caa gct cga gct aaa gta aca 144
 Asp Ser Glu Ile Val Val Gly Lys Glu Gln Ala Arg Ala Lys Val Thr
 35 40 45
 caa agc att gtc ttt gta acc ggc gaa gct tct cct tat gca aag tct 192
 Gln Ser Ile Val Phe Val Thr Gly Glu Ala Ser Pro Tyr Ala Lys Ser
 50 55 60
 ggg ggt cta gga gat gtt tgt ggt tca ttg cca gtt gct ctt gct gct 240
 Gly Gly Leu Gly Asp Val Cys Gly Ser Leu Pro Val Ala Leu Ala Ala
 65 70 75 80
 cgt ggt cac cgt gtg atg gtt gta atg ccc aga tat tta aat ggt acc 288
 Arg Gly His Arg Val Met Val Val Met Pro Arg Tyr Leu Asn Gly Thr
 85 90 95
 tcc gat aag aat tat gca aat gca ttt tac aca gaa aaa cac att cgg 336
 Ser Asp Lys Asn Tyr Ala Asn Ala Phe Tyr Thr Glu Lys His Ile Arg
 100 105 110
 att cca tgc ttt ggc ggt gaa cat gaa gtt acc ttc ttc cat gag tat 384
 Ile Pro Cys Phe Gly Gly Glu His Glu Val Thr Phe Phe His Glu Tyr
 115 120 125
 aga gat tca gtt gac tgg gtg ttt gtt gat cat ccc tca tat cac aga 432
 Arg Asp Ser Val Asp Trp Val Phe Val Asp His Pro Ser Tyr His Arg
 130 135 140
 cct gga aat tta tat gga gat aag ttt ggt gct ttt ggt gat aat cag 480
 Pro Gly Asn Leu Tyr Gly Asp Lys Phe Gly Ala Phe Gly Asp Asn Gln
 145 150 155 160
 ttc aga tac aca ctc ctt tgc tat gct gca tgt gag gct cct ttg atc 528
 Phe Arg Tyr Thr Leu Leu Cys Tyr Ala Ala Cys Glu Ala Pro Leu Ile
 165 170 175

ctt gaa ttg gga gga tat att tat gga cag aat tgc atg ttt gtt gtc	576
Leu Glu Leu Gly Gly Tyr Ile Tyr Gly Gln Asn Cys Met Phe Val Val	
180 185 190	
aat gat tgg cat gcc agt cta gtg cca gtc ctt ctt gct gca aaa tat	624
Asn Asp Trp His Ala Ser Leu Val Pro Val Leu Leu Ala Ala Lys Tyr	
195 200 205	
aga cca tat ggt gtt tat aaa gac tcc cgc agc att ctt gta ata cat	672
Arg Pro Tyr Gly Val Tyr Lys Asp Ser Arg Ser Ile Leu Val Ile His	
210 215 220	
aat tta gca cat cag ggt gta gag cct gca agc aca tat cct gac ctt	720
Asn Leu Ala His Gln Gly Val Glu Pro Ala Ser Thr Tyr Pro Asp Leu	
225 230 235 240	
ggg ttg cca cct gaa tgg tat gga gct ctg gag tgg gta ttc cct gaa	768
Gly Leu Pro Pro Glu Trp Tyr Gly Ala Leu Glu Trp Val Phe Pro Glu	
245 250 255	
tgg gcg agg agg cat gcc ctt gac aag ggt gag gca gtt aat ttt ttg	816
Trp Ala Arg Arg His Ala Leu Asp Lys Gly Glu Ala Val Asn Phe Leu	
260 265 270	
aaa ggt gca gtt gtg aca gca gat cga atc gtg act gtc agt aag ggt	864
Lys Gly Ala Val Val Thr Ala Asp Arg Ile Val Thr Val Ser Lys Gly	
275 280 285	
tat tcg tgg gag gtc aca act gct gaa ggt gga cag ggc ctc aat gag	912
Tyr Ser Trp Glu Val Thr Thr Ala Glu Gly Gly Gln Gly Leu Asn Glu	
290 295 300	
ctc tta agc tcc aga aag agt gta tta aac gga att gta aat gga att	960
Leu Leu Ser Ser Arg Lys Ser Val Leu Asn Gly Ile Val Asn Gly Ile	
305 310 315 320	
gac att aat gat tgg aac cct gcc aca gac aaa tgt atc ccc tgt cat	1008
Asp Ile Asn Asp Trp Asn Pro Ala Thr Asp Lys Cys Ile Pro Cys His	
325 330 335	
tat tct gtt gat gac ctc tct gga aag gcc aaa tgt aaa ggt gca ttg	1056
Tyr Ser Val Asp Asp Leu Ser Gly Lys Ala Lys Cys Lys Gly Ala Leu	
340 345 350	
cag aag gag ctg ggt tta cct ata agg cct gat gtt cct ctg att ggc	1104
Gln Lys Glu Leu Gly Leu Pro Ile Arg Pro Asp Val Pro Leu Ile Gly	
355 360 365	
ttt att gga agg ttg gat tat cag aaa ggc att gat ctc att caa ctt	1152
Phe Ile Gly Arg Leu Asp Tyr Gln Lys Gly Ile Asp Leu Ile Gln Leu	
370 375 380	
atc ata cca gat ctc atg cgg gaa gat gtt caa ttt gtc atg ctt gga	1200
Ile Ile Pro Asp Leu Met Arg Glu Asp Val Gln Phe Val Met Leu Gly	
385 390 395 400	

tct ggt gac cca gag ctt gaa gat tgg atg aga tct aca gag tcg atc	1248
Ser Gly Asp Pro Glu Leu Glu Asp Trp Met Arg Ser Thr Glu Ser Ile	
405 410 415	
ttc aag gat aaa ttt cgt gga tgg gtt gga ttt agt gtt cca gtt tcc	1296
Phe Lys Asp Lys Phe Arg Gly Trp Val Gly Phe Ser Val Pro Val Ser	
420 425 430	
cac cga ata act gcc ggc tgc gat ata ttg tta atg cca tcc aga ttc	1344
His Arg Ile Thr Ala Gly Cys Asp Ile Leu Leu Met Pro Ser Arg Phe	
435 440 445	
gaa cct tgt ggt ctc aat cag cta tat gct atg cag tat ggc aca gtt	1392
Glu Pro Cys Gly Leu Asn Gln Leu Tyr Ala Met Gln Tyr Gly Thr Val	
450 455 460	
cct gtt gtc cat gca act ggg ggc ctt aga gat acc gtg gag aac ttc	1440
Pro Val Val His Ala Thr Gly Gly Leu Arg Asp Thr Val Glu Asn Phe	
465 470 475 480	
aac cct ttc ggt gag aat gga gag cag ggt aca ggg tgg gca ttc gca	1488
Asn Pro Phe Gly Glu Asn Gly Glu Gln Gly Thr Gly Trp Ala Phe Ala	
485 490 495	
ccc cta acc aca gaa aac atg ttt gtg gac att gcg aac tgc aat atc	1536
Pro Leu Thr Thr Glu Asn Met Phe Val Asp Ile Ala Asn Cys Asn Ile	
500 505 510	
tac ata cag gga aca caa gtc ctc ctg gga agg gct aat gaa gcg agg	1584
Tyr Ile Gln Gly Thr Gln Val Leu Leu Gly Arg Ala Asn Glu Ala Arg	
515 520 525	
cat gtc aaa aga ctt cac gtg gga cca tgc cgc tga	1620
His Val Lys Arg Leu His Val Gly Pro Cys Arg	
530 535	

<210> 21
 <211> 539
 <212> PRT
 <213> Zea mays

<400> 21
 Cys Val Ala Glu Leu Ser Arg Glu Asp Leu Gly Leu Glu Pro Glu Gly
 1 5 10 15
 Ile Ala Glu Gly Ser Ile Asp Asn Thr Val Val Val Ala Ser Glu Gln
 20 25 30
 Asp Ser Glu Ile Val Val Gly Lys Glu Gln Ala Arg Ala Lys Val Thr
 35 40 45
 Gln Ser Ile Val Phe Val Thr Gly Glu Ala Ser Pro Tyr Ala Lys Ser
 50 55 60
 Gly Gly Leu Gly Asp Val Cys Gly Ser Leu Pro Val Ala Leu Ala Ala
 65 70 75 80

Arg	Gly	His	Arg	Val	Met	Val	Val	Met	Pro	Arg	Tyr	Leu	Asn	Gly	Thr	85	90	95	
Ser	Asp	Lys	Asn	Tyr	Ala	Asn	Ala	Phe	Tyr	Thr	Glu	Lys	His	Ile	Arg	100	105	110	
Ile	Pro	Cys	Phe	Gly	Gly	Glu	His	Glu	Val	Thr	Phe	Phe	His	Glu	Tyr	115	120	125	
Arg	Asp	Ser	Val	Asp	Trp	Val	Phe	Val	Asp	His	Pro	Ser	Tyr	His	Arg	130	135	140	
Pro	Gly	Asn	Leu	Tyr	Gly	Asp	Lys	Phe	Gly	Ala	Phe	Gly	Asp	Asn	Gln	145	150	155	160
Phe	Arg	Tyr	Thr	Leu	Leu	Cys	Tyr	Ala	Ala	Cys	Glu	Ala	Pro	Leu	Ile	165	170	175	
Leu	Glu	Leu	Gly	Gly	Tyr	Ile	Tyr	Gly	Gln	Asn	Cys	Met	Phe	Val	Val	180	185	190	
Asn	Asp	Trp	His	Ala	Ser	Leu	Val	Pro	Val	Leu	Leu	Ala	Ala	Lys	Tyr	195	200	205	
Arg	Pro	Tyr	Gly	Val	Tyr	Lys	Asp	Ser	Arg	Ser	Ile	Leu	Val	Ile	His	210	215	220	
Asn	Leu	Ala	His	Gln	Gly	Val	Glu	Pro	Ala	Ser	Thr	Tyr	Pro	Asp	Leu	225	230	235	240
Gly	Leu	Pro	Pro	Glu	Trp	Tyr	Gly	Ala	Leu	Glu	Trp	Val	Phe	Pro	Glu	245	250	255	
Trp	Ala	Arg	Arg	His	Ala	Leu	Asp	Lys	Gly	Glu	Ala	Val	Asn	Phe	Leu	260	265	270	
Lys	Gly	Ala	Val	Val	Thr	Ala	Asp	Arg	Ile	Val	Thr	Val	Ser	Lys	Gly	275	280	285	
Tyr	Ser	Trp	Glu	Val	Thr	Thr	Ala	Glu	Gly	Gly	Gln	Gly	Leu	Asn	Glu	290	295	300	
Leu	Leu	Ser	Ser	Arg	Lys	Ser	Val	Leu	Asn	Gly	Ile	Val	Asn	Gly	Ile	305	310	315	320
Asp	Ile	Asn	Asp	Trp	Asn	Pro	Ala	Thr	Asp	Lys	Cys	Ile	Pro	Cys	His	325	330	335	
Tyr	Ser	Val	Asp	Asp	Leu	Ser	Gly	Lys	Ala	Lys	Cys	Lys	Gly	Ala	Leu	340	345	350	
Gln	Lys	Glu	Leu	Gly	Leu	Pro	Ile	Arg	Pro	Asp	Val	Pro	Leu	Ile	Gly	355	360	365	
Phe	Ile	Gly	Arg	Leu	Asp	Tyr	Gln	Lys	Gly	Ile	Asp	Leu	Ile	Gln	Leu	370	375	380	

50

Ile	Ile	Pro	Asp	Leu	Met	Arg	Glu	Asp	Val	Gln	Phe	Val	Met	Leu	Gly
385					390					395					400
Ser	Gly	Asp	Pro	Glu	Leu	Glu	Asp	Trp	Met	Arg	Ser	Thr	Glu	Ser	Ile
				405					410					415	
Phe	Lys	Asp	Lys	Phe	Arg	Gly	Trp	Val	Gly	Phe	Ser	Val	Pro	Val	Ser
			420					425					430		
His	Arg	Ile	Thr	Ala	Gly	Cys	Asp	Ile	Leu	Leu	Met	Pro	Ser	Arg	Phe
		435					440					445			
Glu	Pro	Cys	Gly	Leu	Asn	Gln	Leu	Tyr	Ala	Met	Gln	Tyr	Gly	Thr	Val
	450					455					460				
Pro	Val	Val	His	Ala	Thr	Gly	Gly	Leu	Arg	Asp	Thr	Val	Glu	Asn	Phe
465					470					475					480
Asn	Pro	Phe	Gly	Glu	Asn	Gly	Glu	Gln	Gly	Thr	Gly	Trp	Ala	Phe	Ala
				485					490					495	
Pro	Leu	Thr	Thr	Glu	Asn	Met	Phe	Val	Asp	Ile	Ala	Asn	Cys	Asn	Ile
			500					505					510		
Tyr	Ile	Gln	Gly	Thr	Gln	Val	Leu	Leu	Gly	Arg	Ala	Asn	Glu	Ala	Arg
		515					520					525			
His	Val	Lys	Arg	Leu	His	Val	Gly	Pro	Cys	Arg					
	530					535									

<210> 22
 <211> 30
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic primer

<400> 22
 gtggatccat ggcgacgccc tcggccgtgg

30

<210> 23
 <211> 35
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic primer

<400> 23
 ctgaattcca tatggggccc ctccctgctc agctc

35

<210> 24
 <211> 36
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic
 primer

<400> 24
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<210> 25
 <211> 29
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic
 primer

<400> 25
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<210> 26
 <211> 24
 <212> DNA
 <213> Zea mays

<400> 26
 tgcgtcgcgg agctgagcag ggag 24

<210> 27
 <211> 8
 <212> PRT
 <213> Zea mays

<400> 27
 Cys Val Ala Glu Leu Ser Arg Glu
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<210> 28
 <211> 24
 <212> RNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic
 oligonucleotide

<400> 28
 augaugauga ugaugaugau gaug 24

<210> 29
 <211> 36
 <212> RNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic
 oligonucleotide

<400> 29
 aagaagaaga agaagaagaa gaagaagaag aagaag 36

<210> 30
 <211> 18
 <212> RNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic
 oligonucleotide

<400> 30
 aaaaaaaaaa aaaaaaaaaa 18

<210> 31
 <211> 11
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic
 oligonucleotide

<400> 31
 agataatgca g 11

<210> 32
 <211> 10
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic
 oligonucleotide

<400> 32
 aacaatggct 10

<210> 33
 <211> 56
 <212> PRT
 <213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
consensus sequence

<400> 33

Met Ala Ser Ser Met Leu Ser Ser Ala Ala Val Ala Thr Arg Thr Asn
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20 25 30Ala Phe Pro Val Ser Arg Lys Gln Asn Leu Asp Ile Thr Ser Ile Ala
35 40 45Ser Asn Gly Gly Arg Val Gln Cys
50 55

<210> 34

<211> 58

<212> PRT

<213> Zea mays

<400> 34

Met Ala Pro Thr Val Met Met Ala Ser Ser Ala Thr Ala Thr Arg Thr
1 5 10 15Asn Pro Ala Gln Ala Ser Ala Val Ala Pro Phe Gln Gly Leu Lys Ser
20 25 30Thr Ala Ser Leu Pro Val Ala Arg Arg Ser Ser Arg Ser Leu Gly Asn
35 40 45Val Ala Ser Asn Gly Gly Arg Ile Arg Cys
50 55

<210> 35

<211> 58

<212> PRT

<213> Zea mays

<400> 35

Met Ala Gln Ile Leu Ala Pro Ser Thr Gln Trp Gln Met Arg Ile Thr
1 5 10 15Lys Thr Ser Pro Cys Ala Thr Pro Ile Thr Ser Lys Met Trp Ser Ser
20 25 30Leu Val Met Lys Gln Thr Lys Lys Val Ala His Ser Ala Lys Phe Arg
35 40 45Val Met Ala Val Asn Ser Glu Asn Gly Thr
50 55

<210> 36
 <211> 74
 <212> PRT
 <213> Zea mays

<400> 36
 Met Ala Ala Leu Ala Thr Ser Gln Leu Val Ala Thr Arg Ala Gly His
 1 5 10 15
 Gly Val Pro Asp Ala Ser Thr Phe Arg Arg Gly Ala Ala Gln Gly Leu
 20 25 30
 Arg Gly Ala Arg Ala Ser Ala Ala Ala Asp Thr Leu Ser Met Arg Thr
 35 40 45
 Ser Ala Arg Ala Ala Pro Arg His Gln Gln Gln Ala Arg Arg Gly Gly
 50 55 60
 Arg Phe Pro Phe Pro Ser Leu Val Val Cys
 65 70

<210> 37
 <211> 39
 <212> PRT
 <213> Zea mays

<220>
 <221> MOD_RES
 <222> (17)
 <223> Variable amino acid

<400> 37
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 Xaa Ala Trp Pro Ala Ala Val Gly Asp Arg Ala Arg Pro Arg Arg Leu
 20 25 30
 Gln Arg Val Leu Arg Arg Arg
 35

<210> 38
 <211> 5
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic
 peptide

<400> 38
 Ala Glu Leu Ser Arg
 1 5

<210> 39
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
peptide

<220>
<221> MOD_RES
<222> (2)
<223> Variable amino acid

<400> 39
Lys Xaa Gly Gly Leu Gly Asp Val
1 5

<210> 40
<211> 5
<212> PRT
<213> Unknown Organism

<220>
<223> Description of Unknown Organism: ADPG binding
domain

<400> 40
Lys Thr Gly Gly Leu
1 5